

## B. Amendments to the claims

Claim 1 (Currently amended): A method for ~~serving~~ handling a requests for a resources, said request being made by applications running on a computer, the computer being part of a network of computers, each computer on said network comprising a host program, each said host program comprising a symbiont, each said symbiont encapsulating one ~~data processing~~ resources, said method comprising the steps of:

- a. said host program receiving a said request for said resource from an said applications ~~running on said host's computer~~;
- b. said host program contacting said a symbiont that encapsulates said resource; and
- c. said symbiont performing one of the steps of: either serving said request, or redirecting it to another replicate of itself, or replicating itself onto said host.
  - i. serving said request if the load on said symbiont is less than a threshold,  $I_{max}$ ;
  - ii. replicating said resource on said host, if the load on said symbiont is more than the threshold,  $I_{max}$ , and the load on all symbionts encapsulating said resource, is more than a threshold,  $t$ ;
  - iii. replicating said resource on said host, if the load on said symbiont is more than the threshold,  $I_{max}$ , and said host has been redirected more than a predetermined number of times; and
  - iv. redirecting said request to a replicate if the load on said symbiont is more than the threshold,  $I_{max}$ , and at least one of the symbionts encapsulating said resource has a load less than the threshold,  $t$ , and said host has not been redirected more than a predetermined number of times.

Claim 2 (Currently amended): The method according to claim 1, wherein said host program exposes one or more ~~provides information relating to~~ said symbionts available on said network to said applications running on said host's computer.

Claim 3 (Currently amended): The method according to claim 1, wherein said host program exposes ~~provides information relating to~~ said symbionts available on said host's program computer to said network.

Claim 4 (Currently amended): The method according to claim 1, wherein ~~various~~ replicates of said symbiont resource ~~is~~ are connected together, ~~to support a measure of communication among said replicates.~~

Claim 5 (Currently amended): The method according to claim 4, wherein said ~~various~~ replicates of said symbiont resource are connected together in a multiply connected ring.

Claim 6 (Canceled)

Claim 7 (Currently amended): The method according to claim 6~~1~~, wherein said threshold,  $I_{max}$ , of said symbiont, is lowered to increase the number of replicates ~~evolves with time~~ according to ~~some~~ a predetermined probabilistic measure.

Claim 8 (Currently amended): The method according to claim 6~~1~~, wherein said threshold,  $t$ , of symbionts encapsulating said replicate of said symbiont resource, is less than said threshold,  $I_{max}$  of said symbiont.

Claim 9 (Currently amended): The method according to claim 6~~1~~, wherein said threshold,  $t$ , of symbionts encapsulating said replicate of said symbiont resource, evolves with time according to ~~some~~ a predetermined probabilistic measure.

Claim 10 (Currently amended): The method according to claim 6~~1~~, wherein said ~~step of request is redirected to one of said connected replicates with load less than its threshold~~ serving said request, further comprises said replicate, encapsulated in a symbiont said replicate with the least load serving said request.

Claim 11 (Currently amended): The method according to claim 6~~1~~, wherein said ~~step of request is redirected to one of said connected replicates with load less than its threshold~~ serving said request, further comprises a replicate encapsulated in a symbiont said replicate closest to said host serving said request.

Claim 12 (Currently amended): A system for ~~serving~~ handling a requests for a resources, said request being made by applications running on a computer, the computer being part of a network of computers, each computer on said network comprising a host program, each said host program comprising a symbionts, each said symbionts encapsulating one data-processing-resources, said system comprising:

- a. means for said host program receiving a said request for said resource from an said applications ~~running on said host's computer~~;
- b. means for said host program contacting said a symbiont that encapsulates said . resource; and
- c. means for said symbiont ~~handling~~ replicating said request resource onto said host program.

Claim 13 (Currently amended): The system according to claim 12, wherein said host program exposes one or more ~~provides information relating to said~~ symbionts available on said network to said applications running on said ~~host's~~ computer.

Claim 14 (Currently amended): The system according to claim 12, wherein said host program exposes one or more ~~provides information relating to said~~ symbionts available on said ~~host's computer~~ to said network.

Claim 15 (Currently amended): The system according to claim 12, wherein said ~~various~~ replicates of said symbiont-resource are connected together, ~~to support some measure of communication among said replicates.~~

Claim 16 (Currently amended): The system according to claim 15, wherein said ~~various~~ replicates of said symbiont-resource are connected together in a multiply connected ring.

Claims 17-19 (Canceled)

Claim 20 (Currently amended): A method for managing arranging resources ~~hosts and~~ symbionts in a network of computers, each said computers on said network comprising a

host programs, each said host programs comprising a symbionts, each said symbionts encapsulating ~~one data processing~~ said resources, said method comprising the steps of:

- a. connecting resources in the form of a multiply connected ring initializing a set of ~~hosts and symbionts on said network;~~
- b. replicating a symbiont encapsulating a resource on a host program based on predetermined birthing rules ~~adding a new symbiont for an existing resource to said network, whenever there is a need for one;~~
- c. joining replicate of said resource to said multiply connected ring ~~adding a new symbiont for a new resource to said network whenever said new resource is to be added; and~~
- d. deleting said one of said symbionts encapsulating said resource, ceasing to exist ~~from said multiply connected ring based on predetermined death rules network of computers whenever certain conditions are met.~~

Claim 21 (Currently amended): The method according to claim 20, wherein said host program exposes one or more ~~provides information relating to said~~ symbionts available on said network to applications running on said host's computer.

Claim 22 (Currently amended): The method according to claim 20, wherein said host program exposes one or more ~~provides information relating to said~~ symbionts available on said host's computer to said network.

Claim 23 (Currently amended): The method according to claim 20, wherein various replicates of said symbiont resource ~~are connected together, to support some measure of communication among said replicates.~~

Claim 24 (Currently amended): The method according to claim 23, wherein said various replicates of said symbiont resource ~~are connected together in a multiply connected ring.~~

Claims 25-26 (Canceled)

Claim 27 (Currently amended): The method according to claim 20, wherein said step of replicating a symbiont encapsulating a resource based on birthing rules is performed when any one of the following conditions is satisfied ~~adding a new symbiont for an existing resource to said network, whenever there is a need for one, further comprises the steps of:~~

~~a. determining load on said symbiont, if load on said symbiont is more than its threshold,  $I_{max}$ , and if load on all said connected replicates of said symbiont, is also more than their threshold,  $t_i$ , said symbiont replicating itself on said host;~~

a. the load on said symbiont is more than a threshold,  $I_{max}$ , and the load on all symbionts encapsulating said resource, is more than a threshold,  $t_i$ ; and

~~b. determining load on said symbiont, if load on said symbiont is more than its threshold,  $I_{max}$ , and if said host has been redirected more than a predetermined number of times, said symbiont replicating itself on said host; and~~

b. the load on said symbiont is more than the threshold,  $I_{max}$ , and said host program has been redirected more than a predetermined number of times.

~~c. determining load on said symbiont, in either case, connecting said new symbiont to other said symbionts of said existing resource.~~

Claim 28 (Currently amended): The method according to claim 27, wherein said threshold,  $I_{max}$ , of said symbiont, is lowered to increase the number of replicates evolves with time according to some probabilistic measure.

Claim 29 (Currently amended): The method according to claim 27, wherein said threshold,  $t_i$ , of symbionts encapsulating said replicate of said symbiont resource, is less than said threshold,  $I_{max}$  of said symbiont.

Claim 30 (Currently amended): The method according to claim 27, wherein said threshold,  $t_i$ , of symbionts encapsulating said replicates of said symbiont resource, evolves with time according to a predetermined probabilistic measure.

Claim 31 (Currently amended): The method according to claim 20, ~~wherein said step of adding a new symbiont for a new resource to said network whenever a new resource is to be added~~ further comprises the steps of:

- ~~a. encapsulating said new resource~~ replicate to be initialized in a new symbiont;
- ~~ab. marking original copy of said new~~ one of said symbionts encapsulating said new resource, as immortal, ~~so that it is always present in said network;~~ and
- ~~c. initializing exposing said new symbiont on a computer in said network, wherein said new symbiont runs in said host.~~

Claim 32 (Currently amended): The method according to claim 20, wherein said step of ~~deleting said symbiont from said network of computers whenever certain conditions are met~~ one of said symbionts encapsulating said resource, ceasing to exist from said multiply connected ring based on predetermined death rules, further comprises the steps of:

- a. said symbionts checking their loads at regular time intervals; and
- b. said symbionts dying if their load is less than a threshold,  $I_{min}$ .

Claim 33 (Currently amended): The method according to claim 32, wherein said time intervals depend on time scale of natural fluctuations in the load on a symbiont evolve with time.

Claim 34 (Currently amended): The method according to claim 32, wherein said threshold,  $I_{min}$ , depends on the number of said symbionts ~~evolves with time.~~

Claim 35 (Currently amended): The method according to claim ~~32~~ 3231, wherein said symbionts marked immortal ~~are never~~ cease to exist ~~deleted from said network.~~

Claim 36 (Currently amended): A system for ~~managing~~ arranging resources ~~hosts and symbionts~~ in a network of computers, each said computers on said network comprising a host programs, each said host programs comprising a symbionts, each said symbionts encapsulating ~~one data processing~~ said resources, said system comprising:

a. means for connecting resources in the form of a multiply connected ring ~~initializing a set of hosts and symbionts on said network;~~

b. means for replicating a symbiont encapsulating a resource onto said host based on predetermined birthing rules ~~adding a new symbiont for an existing resource to said network;~~

c. means for joining replicate of said resource to said multiply connected ring ~~adding a new symbiont for a new resource to said network;~~ and

d. means for one of said symbionts encapsulating said resource, ceasing to exist from said multiply connected ring based on predetermined death rules ~~deleting said symbiont from said network of computers.~~

Claim 37 (Currently amended): The system according to claim 36, wherein said host program exposes one or more ~~provides information relating to said symbionts~~ available on said network to applications running on said ~~host's~~ computer.

Claim 38 (Currently amended): The system according to claim 36, wherein said host program exposes one or more ~~provides information relating to said symbionts~~ available on said ~~host's computer~~ to said network.

Claim 39 (Currently amended): The system according to claim 36, wherein ~~various~~ replicates of said ~~symbiont~~ resource are connected together, ~~to support some measure of communication among said replicates.~~

Claim 40 (Currently amended): The system according to claim 39, wherein said ~~various~~ replicates of said ~~symbiont~~ resource are connected together in a multiply connected ring.

Claims 41-43 (Canceled)

Claim 44 (Currently amended): The system according to claim 36, ~~wherein said means for adding a new symbiont for a new resource to said network whenever a new resource is to be added,~~ further comprisinging:

- ~~a. means for encapsulating said new resource to be initialized in a new symbiont;~~
- ab. means for marking original copy of said new one of said symbionts encapsulating said new resource, as immortal, ~~so that it is always present in said network; and~~
- ~~c. means for initializing said new symbiont on a computer in said network, wherein 7 said new symbiont runs in said host.~~

Claim 45 (Currently amended): The system according to claim 36, wherein said means for one of said symbionts encapsulating said resource, ceasing to exist from said multiply connected ring based on predetermined death rules ~~deleting said symbiont from said network of computers whenever certain conditions are met, further comprises:~~

- a. means for said symbionts checking their loads at regular time intervals; and
- b. means for said symbionts dying if their load is less than a threshold,  $I_{min}$ .

Claim 46 (Currently amended): The system according to claim 45, wherein said time intervals depend on time scale of natural fluctuations in the load on a symbiont evolve with time.

Claim 47 (Currently amended): The system according to claim 45, wherein said threshold,  $I_{min}$ , depends on the number of said symbionts evolves with time.

Claim 48 (Currently amended): The system according to claim ~~45~~44, wherein said symbionts marked immortal are never cease to exist ~~deleted from said network.~~